

MICROHMMETER 4445

1. GENERAL. This procurement requires a digitally indicating low resistance ohmmeter for measuring resistive loads and resistance in inductive circuits such as transformers and motor windings.
2. CLASSIFICATION. The equipment shall meet the requirements of MIL-PRF-28800F, class 3, for Navy shipboard, submarine and shore applications. The EMI requirements are not invoked.
- 2.1 Supplemental identification plate: A supplemental identification plate is required and shall indicate the following:
 - a. Manufacturers name and/or cage
 - b. Part or model number
 - c. Serial number
 - d. National stock number
 - e. Contract number
 - f. "Part of" or "P/O" military nomenclature
3. OPERATIONAL REQUIREMENTS. The equipment shall make resistance measurements using the 4-wire Kelvin method over the minimum ranges and accuracy's specified below.
- 3.1 Ranges and Maximum Test Currents:

Range Full Scale	Test Current
1.999 milliohms	1.5 Amps
19.99 milliohms	150 mA
199.9 milliohms	15 mA
1.999 ohms	1.5 mA
19.99 ohms	0.15 mA

- 3.2 Resistance Accuracy: Maximum error shall be equal to or less than $\pm 0.25\%$ of reading.
- 3.3 Display: The display shall be 3-1/2 digit LCD. The display shall have an over range indicator.
- 3.4 Resolution:

Range Full Scale	Resolution
1.999 milliohms	1 microhm
19.99 milliohms	10 microhms
199.9 milliohms	100 microhms
1.999 ohms	1 milliohm
19.99 ohms	10 milliohms

4 GENERAL REQUIREMENTS.

- 4.1 Power Source: The equipment shall be powered by one of the following in accordance with MIL-T-28800:
- a. 120 VAC 60 Hz power line receptacle with maximum power consumption of 120 watts.
 - b. DC internal power batteries. Internal charger is required. The equipment shall provide at least one hour of continuous operation at its maximum test current following a maximum battery charge time of 14 hours.
- 4.2 Lithium Batteries: Per MIL-PRF-28800, lithium batteries are prohibited without prior authorization. A request for approval for the use of lithium batteries, including those encapsulated in integrated circuits, shall be submitted to the procuring activity at the time of submission of proposals. Approval shall apply only to the specific model proposed.
- 4.3 Weight: 10 kg (22 lbs.) maximum.
- 4.4 Accessories: Kelvin clip leads capable of gripping 0000 gauge (0.46 in. diameter) wire, or hand spikes with 2.1 m (7 ft.) cables. These accessories shall be provided with their own carrying case. A plastic laminated accessory inventory list shall be provided and shall be attached to the case in such a manner as to minimize the potential for its physical damage. The case shall be marked in accordance with the reusable pouch or container requirements of MIL-PRF-28800F.
- 4.5 Technical manual: A technical manual shall be provided in both printed and electronic formats. The printed format shall be otherwise normally provided. The electronic format shall consist of the installation programs for the latest version of Adobe Acrobat for all computer platforms for which Acrobat is available and the technical manual in an electronic form that is readable through use of the Adobe Acrobat application.
- 4.6 Optional Transit Case: The Microhmmeter shall be supplied with a hard transit case as a line item option. The hard transit case shall comply with the specification in the MIL-PRF-28800F standard.